

# Foundation for the prevention and pathological aspects of diseases of the mucous membranes of the oral cavity (Review)

Bakaev Zh. N.<sup>1</sup>

<sup>1</sup>*Bukhara state medical Institute, Bukhara, Uzbekistan*

Email: [bakaev\\_z@umail.uz](mailto:bakaev_z@umail.uz)

## ABSTRACT

20%.In a study of 1573 residents of southern China in two age groups who use tobacco and alcohol, the incidence of SOPR was higher among men living in rural areas compared to urban residents. Among women aged 35-44 years, the incidence was higher in urban women, and in the 65-77-year-old group in rural women. In the course of studies in Brazil, among 335 patients older than 60 years, 646 diseases of the SOPR were identified. Similar results were obtained in the analysis of SOPR diseases in the Volgograd region of the Russian Federation [13].

**Keywords:** mucous membrane of the oral cavity, disease processes, immunological and microbiological aspects, prevention.

## 1. INTRODUCTION

Zhekova V. F. [11] analyzed the goals, objectives and main activities carried out within the framework of the National program for the prevention of dental and oral diseases in children aged 0 to 18 years in Bulgaria in 2009-2014. She evaluated the methodology and organization of research on the spread of dental caries and oral diseases in children of three age groups (5-6, 12 and 18 years old), the results obtained by region and at the national level.

Tur'yans'ke M. V. et al. [21] it was found that in recent years, the prevalence of dental disease in children living in the territory of Krasnodar and the Krasnodar territory has increased. The emergence of a dentophobia in children of early age contribute to a variety of factors. In this regard, the authors suggest sanitation of the oral cavity in children under General anesthesia.

The structure and intensity of dental pathology among the same-sex and adolescent patients was determined. The relationship between the influence of certain environmental, nutritional and endogenous factors on the manifestation of caries and occlusion abnormalities is shown [23].

Treatment of oral mucous membrane diseases and prevention of their recurrence are difficult and often ineffective. Pathogenetic approaches to the prevention of relapses should be used, based on a deep knowledge of the mechanisms of development of pathological processes [11].

Analysis of the Association of dental and somatic diseases has shown that the prevalence of dental diseases depends on the presence of concomitant diseases, their severity and duration.

The relationship between General somatic diseases and the state of SOPR is carried out through various types of homeostasis, primarily immunological.In patients with respiratory allergies, there is a single immune-inflammatory mechanism that affects both the oral organs and the respiratory tract. Cytokines and the lysozyme system play a leading role in local oral immunity[9].

SOPR in infectious diseases is involved in the pathological process. The nature of changes depends on the virulence of the pathogen, the stage of development of the disease, and the individual characteristics of the organism. Involvement of SOPR in the General pathological process in most cases aggravates and complicates the course of the underlying disease[12].

Manifestations of pathology in the oral cavity in allergic diseases are different. The prevalence of puffiness of the tongue was observed in 17.7-30%, petechiisopr in 70%, dry lips in 53.2-55% of children.Gum bleeding was detected in 57.2-67.9% of children with bronchial asthma, Tartar in 15.1-15.2%. In patients with rheumatic diseases, dental pathology was 98-100%[1].

In order to improve the effectiveness of treatment of SOPR diseases, the features of the dental status of children suffering from partial and generalized forms of epilepsy were studied. A high prevalence of caries and its complications, chronic catarrhal gingivitis, dental anomalies, and poor oral hygiene in this category of children has been established[2].

Sumkina O. B. et al. [19] also proved that various forms of organ pathology are manifested in the oral cavity with certain symptoms, which in some cases helps to make a correct diagnosis of the underlying disease.

Children with hematological, oncological and immunological diseases often have complications associated with the lesion of the SOPR during treatment with the use of chemo and radiation therapy. The authors believe that adequately selected means of individual oral hygiene, compliance with the regime of oral care significantly improve the condition of the oral mucosa and teeth[22].

Sundukova K. A. et al. [20] presented characteristic lesions of the oral cavity in HIV-infected children. These included diseases of the mucous membrane, salivary glands, and lesions of the hard tissues of the teeth. The degree of their manifestation directly depended on the state of immunity, viral load in the blood. The effect of antiretroviral therapy on CPR in children with HIV infection has also been shown.

As a result of the analysis of diagnostic errors, the main clinical priorities for the examination of children with the most common viral diseases of the SOPR were determined. A thorough collection of anamnesis, examination of the face, vestibular surface of the lips, gums and other parts of the SOPR, including the pharynx, and palpatory examination of the lymph nodes are of great diagnostic value[8].

One of the criteria for the effectiveness of treatment is the quality of life. In recent years, there has been a growing interest in the role of dental health in ensuring the quality of life of people. The dental-facial system as a concentration of the most important functional elements of various organs plays a large role in the complex of physical, emotional, and intellectual characteristics of patients[15].

The oral cavity is an ecological system in which external factors interact with internal ones and are in dynamic balance [14].

The study of the oral microflora plays an important role in deciphering the etiology and pathogenesis of dental diseases, predicting their course and achieving treatment success. Pathogenic microorganisms have the potential to cause diseases, but the crucial link is always the macroorganism [4].

We studied the prevalence of aerobic and anaerobic oral microflora in children (n=50) with gastroduodenal diseases. These children had a symbiosis of pathogenic anaerobic microorganisms that exacerbate the course of the disease. Comparative characteristics showed that anaerobic strains were sown in the main group in 84.6% of cases compared to the compared 15.4%[16].

Previously, it was found that a decrease in the level of sIgA in children with rheumatic diseases is a risk factor for the development of multiple dental caries, as well as the development of inflammatory diseases of periodontal tissues and SOPR. Children with juvenile rheumatoid arthritis have inflammatory periodontal diseases against the background of reduced sIgA. In this disease, the functioning of the local immunity of the oral cavity is disrupted, which is a factor in the development of dental caries, multiple focal demineralization of enamel, as well as the development of inflammatory diseases of periodontal tissues and SOPR [10].

One of the links of innate immunity are endogenous antimicrobial peptides (catelicidins (LL-37), defensins (HNP 1-3)), secreted by epithelial cells of the oral cavity, neutrophils, lymphocytes and monocytes. The level of HNP 1-3 in the group of children with bronchial asthma was significantly lower in decompensated and subcompensated forms of caries in comparison with the compensated form. The level of LL-37 and HNP 1-3 in the saliva of asthmatic children is significantly lower than in children of the control group [17].

Studies have found that the content of lysozyme in the oral fluid of patients suffering from chronic generalized periodontitis is accompanied by a decrease (up to 33.2%), an increase in the concentration of ceruloplasmin by 58.1%, which is compensatory. There was a decrease in sIgA and IgM in the oral fluid. The results indicate that there are Autonomous mechanisms in the oral cavity that regulate immunological reactivity and the state of non-specific protection[5].

The analysis of the features of local immunological factors of the oral cavity during prosthetics with orthopedic structures is carried out. The importance of saliva and gingival fluid in maintaining

structural homeostasis of the oral cavity, which contain immunoglobulins, cytolytic T-lymphocytes, and neutrophils, which play a fundamental role in maintaining and providing local immune protection, was substantiated.

Currently, there are significant differences in the models of organization of preventive care to the population, which is evident at the national and regional level in many States. Based on medical, legal, and social characteristics, specialists solve the main task of prevention - to ensure a steady improvement in the state of oral hygiene of patients and reduce the number of dental diseases [3, 25].

According to existing research, even in developed countries, more than 1/3 of children under 11 years of age have never been to a dentist. Therefore, the task of extending preventive measures to a wider population can be solved by changing the model of organization of preventive care in the United States [28] and Canada [26], which will, on the one hand, reduce the cost of access to prevention programs for citizens, and on the other hand, remove the burden on dentists to provide appropriate services. At the same time, training programs for hygienists or dental hygienists should include classes, aimed at mastering the skills of theories of socio-psychological analysis for the formation of a more effective plan of preventive measures and increasing the level of motivation of patients in improving the state of oral hygiene and maintaining it at a sufficiently high level.

## 2. CONCLUSION

In the standards of work of hygienists developed by the corresponding associations of some countries, special emphasis is placed on the task of introducing computer and Internet technologies into preventive practice [26,27].

Special attention is also required to create a General dental computer database of patients available to specialists on a national scale, which also includes information about preventive examinations and events. In this case, there is a question about the confidentiality of personal data of patients, but it can be resolved using legal mechanisms[18].

According to who reports [28,29], population surveys are not conducted on a regular basis, which is the reason for the discrepancy between the needs of the population and state prevention programs[18].

There are primary and secondary prevention. Primary prevention refers to a set of measures aimed at preventing the occurrence of diseases and eliminating risk factors. Secondary prevention is the treatment of emerging pathological processes of the oral cavity.

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